

# BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number  
**WO 2005/061499 A1**

(51) International Patent Classification<sup>7</sup>: C07D 471/10,  
221/20, 209/54, A61K 31/438, 31/403, 31/407, A61P  
11/06, 11/08, 19/02, 29/00

(21) International Application Number:  
PCT/SE2004/001938

(22) International Filing Date:  
20 December 2004 (20.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0303541-7 22 December 2003 (22.12.2003) SE

(71) Applicant (for all designated States except US): AS-  
TRAZENECA AB [SE/SE]; S-151 85 Södertälje (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HOSSAIN, Nafizal  
[SE/SE]; AstraZeneca R & D Lund, S-221 87 Lund (SE).  
IVANOVA, Svetlana [RU/SE]; AstraZeneca R & D Lund,  
S-221 87 Lund (SE).

(74) Agent: ASTRAZENECA; Global Intellectual Property,  
S-151 85 Södertälje (SE).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LI, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: NOVEL TRICYCLIC SPIRODERIVATIVES AS MODULATORS OF CHEMOKINE RECEPTOR ACTIVITY

(57) Abstract: The invention provides compounds of formula (I) wherein m, R<sup>1</sup>, n, R<sup>2</sup>, q, p, X, Y, R<sup>3</sup>, R<sup>4</sup>, t and, R<sup>5</sup> are as defined in  
the specification, processes for their preparation, pharmaceutical compositions containing them and their use in therapy.

WO 2005/061499 A1